Environmentally friendly container solution for grain silos, malting plants, etc.

BOGE blueprotect: Protection from pests in grain storage

The number of starving people in the world is increasing. But at the same time large amounts of grains are going to waste on the way to the consumer. It is in the poorer regions of the world in particular that the greatest losses arise shortly after harvesting. To provide better protection from pests for grain stored in silos, the compressed air specialist BOGE has developed a method that is as simple as it is effective. With blueprotect, BOGE uses nitrogen from the ambient air. This removes the oxygen from the silo and therefore takes away the means of survival for pests and fungi. The method is carried out without any chemical agents and is therefore harmless in food production and does not cause environmental damage. It is therefore suitable for organically cultivated products and brewery suppliers, for example.

Granary weevils, parasitic fungi, mice and rats: a large part of the grain stored worldwide falls victim to pests and so-called breathing losses. Oxygen plays a critical part in this. Lack of oxygen minimises storage losses. blueprotect is based on this simple principle. BOGE feeds a mix of gases into the grain silos - consisting of almost pure nitrogen with a maximum of one per cent residual oxygen. The nitrogen drives out the oxygen, thereby removing aerobes, and thus the means of survival for pests and fungi. At the same time, the effect of breathing losses is minimised, and the risk of smouldering fires is decreased.

For blueprotect, BOGE uses nitrogen from the ambient air. A compressor produces compressed air close to the silo. It reaches a membrane filter via a dryer and combined filter, which separates the nitrogen (N_2) from the oxygen (O_2) and

feeds it into the silo. As a main component of the air we breathe, nitrogen is available in unlimited supplies, and is completely harmless when in contact with foodstuffs. After use, the nitrogen is re-absorbed into the ambient air. This makes blueprotect an attractive method of pest control wherever the use of chemical agents is not permitted or desirable – for example, in ecological farming or in the supply chain for breweries. Malting plants, for instance, have to ensure that no chemical residues are left behind in the barley; these could later find their way into the beer with the malt when brewing.

The processing is straightforward for the user: BOGE arranges all plant components in a container, so that blueprotect can be placed flexibly, without special prior knowledge and in different types of silos. BOGE analyses the starting position with the customer to record the initial nitrogen requirement. An essential precondition is a sufficiently airtight silo. For a test run, BOGE offers a rental container if required by the customer, with which the airtightness of the silo can be clearly ascertained after a few days.

About BOGE India

BOGE Compressors India based in Chennai is a subsidiary of BOGE KOMPRESSOREN Otto Boge GmbH & Co. KG. With more than 110 years of experience in mechanical engineering, BOGE KOMPRESSOREN Otto Boge GmbH & Co. KG is one of the oldest manufacturers of compressors and compressed air systems in Germany. Whether for high speed turbo compressors, screw compressors, piston compressors, scroll compressors, complete systems or individual devices, BOGE meets the most diverse requirements and highest standards – in a precise and quality-aware manner. The warehouse of BOGE India stocks the high-quality machines and spare parts, while an ever-expanding network of regional sales and service partners takes care of their distribution and maintenance.